

BATES (W.H.)



TREATMENT OF CHRONIC INFLAMMATION
OF THE
Mucous Membrane of the Eye, Ear and Throat.

By W. H. BATES, M. D., of New York, N. Y.

LECTURER, ETC., NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL, ETC.

[Reprint from the VIRGINIA MEDICAL MONTHLY, June, 1892.]

Success in the treatment of chronic inflammation of the mucous membrane of the eye depends not so much on the remedy used as in the way it is used. One can do harm by using remedies too strong, too often, or in too large quantity locally. Each case is a study in itself, and treatment at first should be always tentative. In some cases of trachoma, for example, nitrate of silver, gr. x to $\frac{3}{j}$, may be beneficial, while other cases, apparently the same in severity, may not be relieved at all; and still other cases may be made worse by the use of silver of the same strength. The action of nitrate of silver is similar very nearly to sulphate of copper, zinc, iron, alum, etc.

Nitrate of silver is a remedy of great value in the treatment of chronic inflammation of the mucous membrane of the eye. It is especially indicated where there is discharge of mucus or pus. The strength is a matter of much importance. If used in too weak a solution, little benefit may follow the applications to the mucous membrane. If used

too strong, it causes destruction of tissue. The strength to be used is in direct proportion to the amount of congestion or swelling of the mucous membrane. Where the swelling is great, stronger solutions may be applied, and in larger quantity than where the swelling of the mucous membrane is inconsiderable. When the nitrate of silver solution is of proper strength to obtain the best results from its use, on applying it to the mucous membrane, the membrane pales immediately, the swelling subsides at once, and the application causes no pain or discomfort to the parts whatsoever. Sometimes this effect is obtained with a solution, gr. v to ʒj ; in other cases gr. xx to ʒj is necessary, and even the saturated solution may be necessary to cause the membrane to pale. A saturated solution is rarely necessary, and it is safer to begin with very weak solutions at first, and watch the immediate effect. In those exceptional cases where a saturated solution was used with great benefit, the patients made the statement that the silver made the parts feel cool. A strong solution may be used with benefit to-day, and if used to-morrow may do harm. With the improvement in the inflammation, the silver has to be used in weaker solution. A healthy mucous membrane of the eye cannot stand even a solution of gr. v to ʒj .

There are exceptional cases where the swelling and congestion of the mucous membrane of the eye is so great that even the stick of nitrate of silver is not sufficient to reduce the inflammation. The actual cautery has been used with great benefit in such rare cases.

The congestion and swelling of the mucous membrane of the nose and throat is often so great that the cautery is more frequently of benefit than in inflammation of the mucous membrane of the eye.

Nitrate of silver, after it has been used for a time, may cease to benefit. Sulphate of copper, or other astringents, may now be used with good results. Later, in the same patient, the use of nitrate of silver may be used with advantage.

The manner of applying local remedies is also important.

A good way is to wrap the end of a light probe with fresh cotton, wet the cotton with the solution to be used, and apply it directly to the inflamed mucous membrane. It is better to use small quantities, and just enough, so that the solution does not run to parts not inflamed. Chronic trachoma of the upper lid, has been cured by applying nitrate of silver in this way only to the upper lid, while the trachoma of the lower lid remained stationary. Dropping the remedy into the eye with an eye-dropper does not succeed so well as when the applications are made directly to the inflamed membrane.

Ointments of various kinds are very useful in the treatment of chronic inflammation of the mucous membrane of the eye, ear, and nose. The strength of the ointment is important. Yellow oxide of mercury may be used, gr. ij —1 to the ʒj. Severe inflammation, as a rule, requires that the strength of the ointment be greater than in mild cases. For example, a very bad case of phlyctenular conjunctivitis, with considerable photophobia, was not relieved at all by the use of yellow oxide, gr. xvj to ʒj, after several months, treatment. After using the ointment, gr. l to ʒj for several days, the patient seemed entirely relieved. No relapse after six months.

The use of goose grease and other ointments for an acute cold, is ancient history. Chronic inflammation of the nose and naso-pharynx, even when associated with hypertrophies, has been relieved by ointments applied externally and snuffed up the nose. The benefit may be due to relaxing the vaso-motor spasm.

The use of cleansing and antiseptic solutions in the eye and ear, are only beneficial when the cause of the inflammation is infection. A chronic suppurative inflammation of the middle ear can be relieved by the use of cleansing and antiseptic solutions. But a chronic inflammation of the middle ear, not caused by infection, is made worse by the use of cleansing or antiseptic solutions. A chronic trachoma, or an infectious inflammation of the mucous membrane of the eye, can be cured by thorough cleansing

and antiseptic treatment in a very short time. But a chronic conjunctivitis not caused by infection, is not relieved by such treatment. And what is true of the eye and ear seems true also of the nose and throat. Spraying the nose and throat to cleanse the mucous membrane in those very common forms of inflammation not caused by infection, not only may fail to relieve, but is often injurious.

The application of remedies with the spray is objectionable, because the remedies used reach parts which may be healthy. The ear is injured by spraying the nose. Chronic middle ear inflammation results from the use of even lukewarm water sprayed or snuffed up the nose. It is safer to apply remedies to the mucous membrane of the nose and throat by means of cotton wrapped on a fine probe. In this way the action of the remedy can be limited to the diseased areas.

Hygienic measures are decidedly of value in obstinate cases.

Constitutional treatment is often indicated even in cases where the cause is one of local infection.

Remedies which are beneficial in acute inflammations, are often beneficial also in chronic inflammations.

A patient with trachoma who suffers from either rheumatism, syphilis, scrofula, dyspepsia, etc.,—the trachoma will improve more rapidly if the general disease is relieved. As a rule, tonics are required—and any remedy which improves the vitality of the patient lessens the inflammation of the mucous membrane.

Tincture of the chloride of iron is a very useful remedy in acute tonsillitis and in diphtheria. The dose depends very much upon the severity of the inflammation. The greater the inflammation, the larger the quantity of iron which can be taken with benefit. In diphtheria, a severe inflammation of the mucous membrane caused by infection, the vitality is lowered—there seems to be need of a powerful tonic. And as the inflammation improves, there is less need of the iron, shown by its upsetting the stomach.

In chronic inflammations of the mucous membrane there

seems to be the same need of a powerful tonic as in diphtheria. Tincture of iron may be given in doses of a drachm well diluted six times a day and with great benefit. As the inflammation of the mucous membrane improves the dose has to be decreased.

Iron in chronic inflammation of the mucous membrane resembles iodide of potassium in syphilis. In syphilis, as is well known, it frequently happens that large doses of the iodide can be taken with benefit; and in some cases large doses are necessary to obtain benefit with improvement in the symptoms of syphilis; the large doses of iodide are not so well borne and smaller doses are beneficial.

In chronic inflammation of the mucous membrane of the eye, ear, nose, and throat, tincture of iron can be given in large doses with benefit—and in some cases large doses are necessary to obtain benefit; with improvement in the symptoms of inflammation of the mucous membrane, the large doses of iron are not so well borne, and smaller doses are beneficial.

CASE I.—Miss F., aged 3, had catarrh of the eyes, ears, nose, throat, and bronchial tubes, with a capricious appetite, and bowels irregular. At night the child had great distress in breathing. The condition had lasted for some time.

Treatment consisted in restricting the diet to bread and milk—no other treatment. The child did not like milk, and would not touch the bread for three days. It had to be starved before it would accept this diet. In two weeks, the bad breathing at night had disappeared, the general catarrh improved rapidly, and the child seemed perfectly well at the end of a month. The child gradually was allowed meat and vegetables, but no fruit and no sweet things.

At the end of three years, still free from catarrh.

CASE II.—*January, 1888.*—Miss H., aged 2, has an acute inflammation of the middle ear—purulent discharge. Local treatment relieved the active symptoms, and the patient disappeared from observation.

March 14th, 1892.—The patient presents herself for treatment. The mother states that the child has had a slight discharge from both ears for four years; that she is very deaf at times, and has a chronic cold in her nose and throat. The child is nervous, pale, and run down generally. She

has chronic naso-pharyngeal catarrh and chronic suppuration of middle ear. Mouth-breather.

The mother had consulted a number of physicians, who have used various methods of treatment without relief. The patient has grown steadily worse.

Treatment which seemed to relieve the symptoms:

Syringing the ear with hot water three times daily.

The use of goose grease on the forehead, on the skin of the nose, and snuffed up the nose several times daily.

No fruit, no sweets.

After each meal, patient lay down in a quiet place and tried to sleep for fifteen minutes.

Out-door life. Dry rubbing of the skin twice daily.

At the end of a month, the discharge had entirely ceased from the ear, and the drum membranes became normal in appearance. Hearing normal—watch at 5 feet. The naso-pharyngeal catarrh had ceased. No longer a mouth-breather. Skin ruddy. No longer nervous. Appears cured.

CASE III.—Mr. M., aged 42. Chronic trachoma of both eyes. General health good. Vision reduced in both eyes. Chronic naso-pharyngeal catarrh.

Local treatment of the mucous membrane of the eye with nitrate of silver *relieved the symptoms of the trachoma and improved the vision to the normal.*

Treatment of the nose with the galvano-cautery, chromic acid. The removal of hypertrophies by various operations for a year did not cure the nasal symptoms.

After this treatment had been stopped for three months, the nasal catarrh still continued. Vaseline was now used on the outside of the nose and snuffed up both nostrils. At the end of two weeks the nasal catarrh seemed entirely relieved.

CASE IV.—Mr. F., aged 30; telegraph operator; chronic nasal catarrh; general health good. After using various astringent solutions in the nose at different times for several years, the symptoms were not relieved. Vaseline, applied externally over the nose and snuffed up the nostrils, was followed by complete relief after several weeks' treatment. He works in a room where the air is bad and by an artificial light; after working for a few hours, his nose becomes stopped up; vaseline relieves him almost immediately.

CASE V.—A boy, aged 2; chronic naso pharyngeal catarrh after measles; general health good. Vaseline was used for several months without relief. Goose grease had a better

effect, and its use was followed by complete relief in a few weeks.

Chronic naso-pharyngeal catarrh in elderly people cannot be relieved by local treatment. General treatment seems to be indicated.

CASE VI.—A shoemaker, aged 73, had chronic naso-pharyngeal catarrh. O. M. C. C. Tinnitus. He was very anæmic. Appetite poor.

Tincture of iron ordered, ten drops well-diluted after meals. No other treatment. The dose was rapidly increased. At the end of a week he was taking ʒj hourly; and in two weeks after he began treatment, he took ʒij almost every hour through the day. Two ounces of tincture of iron was his daily dose. The chronic naso-pharyngeal catarrh improved rapidly, and his appetite returned. The hearing improved, and the noise in his ears became less. With the improvement in the catarrh, the iron began to disagree; and finally, when the catarrhal symptoms had entirely disappeared, he could not take ten drops of iron without upsetting his stomach.

The three following cases of trachoma show that an infectious inflammation of the mucous membrane of the eye resists local treatment when the general condition is poor.

CASE VII.—A boy, aged 13, was treated at the New York Eye Infirmary for chronic trachoma. General health poor. All kinds of local treatment were employed without relief. He was taken into the hospital, and a number of operations performed, which did not succeed in affording relief. Later jecquirity was tried—jecquirity is a remedy which generally relieves very bad cases of trachoma—but the patient nearly lost both eyes following this treatment. Finally local treatment was stopped; the boy fed up, and was compelled to spend most of his time out-doors in the sun. Very much improved.

CASE VIII.—Mr. M., aged 40, living in a tenement house. Chronic trachoma of both eyes. Was treated with blue-stone three times a week for six months, and at the end of that time his eyes were much worse.

September, 1891, began treatment. Nitrate of silver was applied to the conjunctiva of both eyes three times a week. The trachoma grew steadily worse. At the end of three months an operation under ether was done. The retrotarsal folds were scarified, and bichloride $\frac{1}{800}$ rubbed in vigor-

ously with a tooth-brush (grattage.) In two weeks, the eyes were very much improved. A few months later, relapsed—relieved by a repetition of the grattage operation.

This patient has chronic rheumatism, which keeps him confined at times in a stuffy room, with poor light and bad air.

During the periods when he remains in the house the eyes are worse. When he is able to be out-doors the eyes improve. He frequently tells me that after he has been in the house for a few hours, the intolerance of light and the discharge become worse. After being in the open air for about an hour the discharge lessens, the photophobia almost disappears, and the eyes feel relieved.

CASE IX.—Miss M., aged 18, living in the same house with the preceding case. Chronic trachoma ten years' duration. Her general condition is good. She seems to be in perfect health.

January, 1892.—Operation performed on both eyes under ether. The mucous membrane was scarified and rubbed vigorously with bichloride $\frac{1}{500}$ (grattage.)

February, 1892.—No symptoms of trachoma.

May 10th, 1892.—Still relieved entirely.

A study of these and other cases of chronic inflammation of the mucous membrane of the eye, caused by the infectious matter of trachoma, seems to show that local treatment used alone can cure only those cases where the general health is good.

The following two cases emphasize the importance of diet in the treatment of obstinate cases:

CASE X.—A boy, aged 7, had suffered from a painful inflammation of his eyes for three years. He had been under treatment by different physicians most of this time with very little relief. Examination of his eyes showed typical phlyctenular conjunctivitis. The usual local remedies for this condition were tried in turn. The mother brought the child faithfully to the clinic for a year, and at the end of this time the eyes were no better. In conversation with the mother, it was learned that the child was cared for during the day by the grandmother, who persistently gave the patient candy and fruit against the advice of all the physicians who had prescribed for the child. The mother now took the child away and looked after it herself, and stopped the sweets and the fruit. In one month, the eyes seemed

entirely well. Three years later, no return of the inflammation of the conjunctiva.

CASE XI.—A woman, aged 45, had chronic conjunctivitis which resisted treatment. She was seen one day eating candy, and when questioned, said that she made it a practice to eat a quantity of cheap candy every day. After stopping the candy, the chronic inflammation of the conjunctiva recovered promptly.

Three cases of chronic suppuration of the mucous membrane cured by cleansing and antiseptic treatment are now reported.

CASE XII.—This was a case of *dacryo-cystitis* which seemed to show that free drainage was not sufficient to relieve a chronic purulent inflammation of the mucous membrane of the lachrymal sac. A woman, aged 35, had a purulent discharge from the lachrymal sac, continuing a year after an operation had been performed to cure the condition by opening the sac and nasal duct, and dilating with lachrymal probes once or twice a week up to the time the patient came under observation. A No. 9 Bowman probe could be passed easily down the nasal duct into the nose. Patient stated that she tasted the alum wash used to bathe her eye, showing that the duct was open. Treatment consisted in syringing the sac and nasal duct with warm water. The water when syringed into the lachrymal sac soon flowed out of the nose in a steady stream. The syringing was kept up until the water came away clear, and then nitrate of silver gr. v to 3j injected. This treatment was kept up daily without the use of probes for two weeks, when the symptoms seemed entirely relieved.

CASE XIII.—*Chronic Dacryo-Cystitis—Impassable Stricture—Lachrymal Fistula. Cured by simple treatment.*

Miss I., aged 35, had a purulent discharge from the lachrymal sac for some time. The nasal duct seemed impassable from a bony obstruction. Seven operations performed had not relieved the patient. At the time the patient came under observation, the smallest probe (Bowman, No. 1) could not be passed through the nasal duct without great difficulty, and without causing the most excruciating pain to the patient, and some hæmorrhage. There was a fistulous opening one-half inch below the inner corner of the eye on the side of the nose, covered by a crust one-half inch square. Syringing the sac, the water spurted out of the fistulous opening and did not pass into the nose. The

sac was syringed with hot water until the water came away clear, and then a solution of nitrate of silver, gr. v to 3j, injected. At no time was the patient able to state that the water or nitrate of silver entered the nose. This treatment was kept up daily for six weeks, with gradual but steady improvement, until cured. Six months later, fistula still closed, with a very slight scar hardly noticeable. No return of the purulent discharge or epiphora.

CASE XIV.—Mr. S., aged 25, had a chronic suppuration of both middle ears for twenty years; general health good. He was treated in June, 1835. Treatment consisted in thorough cleansing of the middle ear by syringing with hot water, and by the use of inflation of the middle ear. It required about an hour's work twice a day, early in the treatment, to remove the secretion thoroughly. At the end of a month the ears were perfectly dry.

June, 1891, six years later, no return of the purulent or other discharge from the middle ear.

In the treatment of such cases the cleansing must be most thorough. The discharge becomes at times thick, tenacious, almost insoluble in peroxide of hydrogen water or alcohol, and its removal is most difficult. If left, causes re-infection.

There is a form of chronic inflammation of the mucous membrane of the eye which is characterized by severe symptoms, without the appearance of much local congestion or swelling of the membrane. The discharge of mucus may be quite profuse, the intolerance of light may be extreme, the eyes may water in the open air or in a close room, and the mucous membrane be not very much inflamed. The symptoms of inflammation seem to be, in their severity, out of all proportion to the inflammation of the mucous membrane. The eye may be, in all other respects, nearly normal. This form of inflammation occurs in individuals whose general health seems good, as well as in those whose general condition is poor; it is very common. There are very few people who do not suffer from it, more or less, at different times. The relief of this form of conjunctivitis is usually a difficult matter. Local treatment is seldom curative. The treatment which relieves many of these cases is dry rubbing of the skin night and morning. Some are

cured by nasal treatment, and others are not relieved at all by such treatment. Rest of the eyes does not relieve. Active exercise, especially if the patient enjoys it, is of great benefit; but exercise which is disagreeable to the patient has failed to lessen the symptoms of inflammation.

What is true of the eye seems to be true also of the nose, throat and ear. There may be a great deal of discharge from the mucous membrane of the naso-pharynx without much swelling or congestion of the mucous membrane. There may be well-marked deafness, and the inflammation of the mucous membrane of the Eustachian tube and middle ear be very slight. Some persons have severe symptoms of local inflammation from what seems to be slight causes. The principles of treatment applicable to the mucous membrane of the eye, hold good in the treatment of the nose, throat and ear.

CASE XV.—A business man, aged 30, has had trouble with his eyes for a number of years. The eyes itch, stick together in the morning, water profusely in the open air, great intolerance of light, especially gas light; chronic conjunctivitis. The mucous membrane of the eye-lids very slightly congested. Eyes otherwise nearly normal. He is also troubled with frequent colds in the nose and throat, and with attacks of catarrhal deafness in summer as well as in winter. General health, good. Treatment consisted in dry rubbing of the skin with a coarse towel night and morning. No local or other treatment. Entirely relieved at the end of several weeks. Four years later, he reports no return of the catarrhal symptoms. He still keeps up the dry rubbing twice daily.

Conclusions.—1. Chronic inflammation of the mucous membrane of the eye, ear and nose, caused by infection, is curable by local treatment alone, when the general health is good.

2. When the cause is not infectious, general treatment is usually beneficial.

3. Severe forms of inflammation are often relieved by mild methods of treatment.

131 West Fifty-Sixth Street.

